

Form PTO-1449		U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. 2048/50875-DA	Serial No. 09/888,938
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)		Applicants Graham P. Allaway, et al.		
		Filing Date June 25, 2001	Group	

U.S. PATENT DOCUMENTS

Examiner Initial	Document Number		Date	Name	Class	Subclass	Filing Date if Appropriate

FOREIGN PATENT DOCUMENTS

	Document Number	Date	Country	Class	Subclass	Translat ion	
						Yes	No
TMB	9 7 4 7 3 1 8	12/18/97	PCT (Exhibit B)				
TMB	9 7 3 7 0 0 5	10/9/97	PCT (Exhibit C)				
TMB	9 6 4 1 0 2 0	12/19/96	PCT (Exhibit D)				

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Sheet 1 of 1

U.S. Department of Commerce Patent and Trademark Office					Atty. Docket No. 2048/50875-F-PCT-US	Serial No. 09/460,216	
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)					Applicants Graham P. Allaway, et al.		
					Filing Date December 13, 1999	Group 1648	
U.S. PATENT DOCUMENTS							
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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
TMB	Broder, et al., (1996) "HIV and the 7-Transmembrane Domain Receptors", <u>Pathobiology</u> , 64(4), 171-179 (Exhibit B)						
TMB	Dikic, (1996) "Regulation of HIV-1 Infection By Chemokine Receptors", <u>Acta Med. Croatica</u> , 50, 163-168 (Exhibit C)						
EXAMINER <i>Tin Bo</i>	DATE CONSIDERED <i>4/20/04</i>	RECEIVED APR 23 2003 TECH CENTER 1600/2900					

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U.S. PATENT DOCUMENTS

Examiner Initials and Last Name	Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
TB	US 5 1 2 6 4 3 2	12/21/89	Murter, B. et al.	TB	4/22/04	
TB	US 5 0 2 1 4 0 9	6/6/92	Madden, et al. Murter, B.	TB	4/22/04	
TB	US 5 4 4 0 0 2 1	8/5/95	A. Chunthrapai, et al.			
TB	US 5 5 0 4 0 0 3	4/2/96	Haodong Li, et al.			

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

TB	A	Alkhatib, Ghalib, et al., (1996). "CC CKR5: A RANTES, MIP-1 α , MIP-1 β Receptor as a Fusion Cofactor for Macrophage-Tropic HIV-1" <i>Science</i> 272:1955-1958
	B	Alkhatib et al. (1997). "HIV-1 Coreceptor Activity of CCRS and Its Inhibition by Chemokines: Independence From G Protein Signaling and Importance of Coreceptor Downmodulation" <i>Virology</i> 234: 340-348
	C	Arenzana-Selsdedos, Fernando, et al., (1996). "HIV Blocked by Chemokine Antagonist" <i>Nature</i> 383:400
	D	Berger et al., (1999). "Chemokine Receptors as HIV-1 Coreceptors; Roles in Viral Entry, Tropism, and Disease" <i>Ann. Rev. Immunol.</i> 17: 657-700
	E	Bleul, Conrad C., et al., (1996). The Lymphocyte chemoattractant SDF-1 is a Ligand for LESTR/Fusion and Blocks HIV-1 Entry" <i>Nature</i> 382:829-832
	F	Brenner, T.J., et al., (1991). "Relation Between HIV-1 Syncytium Inhibition Antibodies and Clinical Outcome in Children" <i>The Lancet</i> 337:1001-1003
	G	Cammack, Nick, (1999). "Human Immunodeficiency Virus Type 1 Entry and Chemokine Receptors: A New Therapeutic Target" <i>Antiviral Chemistry and Chemotherapy</i> 10: 53-62

EXAMINER T. B.

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4/22/04

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Applicants, Graham P. Allaway, et al.
Serial No.: 09 888,938
Filed: June 25, 2001
Exhibit A

Form PTO-1449

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							Yes	No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

TB	H	Choe, Hyeryun, et al., (1996). "The β-Chemokine Receptors CCR3 and CCR5 Facilitate Infection by Primary HIV-1 Isolates" <u>Cell</u> 85:1135-1148
	I	Cocchi, Fiorenza, et al., (1995). "Identification Of RANTES, MIP-1α, and MIP-1β as the Major HIV-Suppressive Factors Produced by CD8+ T Cells" <u>Science</u> 270: 1811-1815
	J	Daar, Eric S., (1990). "High Concentrations of Recombinant Soluble CD4 Are Required to Neutralize Primary Human Immunodeficiency Virus Type 1 Isolates" <u>Medical Sciences</u> 87: 6574-6578
	K	De Clercq, et al., (1992). "Potent and Selective Inhibition of Human Immunodeficiency Virus (HIV)-1 and HIV-2 Replicationby a Class of Bicyclams Interacting with a Virus Uncoating Event" <u>Proc. Natl. Acad. Sci.</u> 89: 5286-5290
	L	De Clercq, et al., (1994). "Highly potent and selective inhibition of human immunodeficiency virus by the bicyclam derivative JM3100" <u>Antimicrobial Agents and Chemotherapy</u> 38: 668-674
	M	De Clerq, E., (1995). "Antiviral Therapy for Human Immunodeficiency Virus Infections" <u>J. Clin. Microbiol. Rev.</u> 8(2): 200-239

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						Yes	No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

TB	N	Deng et al., (1996). "Identification of a Major Co-Receptor for Primary Isolates of HIV-1" <u>Nature</u> 381: 661-666
	O	Doranz et al., (1996). "A Dual-Tropic Primary HIV-1 Isolate That Uses Fusin and the β -Chemokine Receptors CKR-5, CKR-3, and CKR-2b as Fusin Cofactors" <u>Cell</u> 85: 1149-1158
	P	Doranz, et al., (1997). "A Small-Molecule Inhibitor Directed Against the Chemokine Receptor CXCR4 Prevents Its Use as an HIV-1 Coreceptor" <u>J. Exp. Med.</u> 186(8): 1395-1400
	Q	Dragic, Tatjana, et al., (1996). "HIV-1 entry into CD4+ cells is mediated by the chemokine receptor CC-CKR-5" <u>Nature</u> 381:667-673
	R	Eugen-Olsen, Jesper, et al. (1997). "Heterozygosity for a Deletion in the CKR-5 Gene Leads to Prolonged AIDS-free Survival and Slower CD4 T-cell Decline in a Cohort of HIV-seropositive Individuals" <u>AIDS</u> 11: 305-310
	S	Faley, J.L., et al., (1992). "Status of Immune-based Therapies in HIV Infection and AIDS" <u>Clin. Exp. Immunol.</u> 88: 1-5
↓	T	Feng et al., (1996). "HIV-1 Entry Cofactor: Functional cDNA Cloning of a Seven-transmembrane, G Protein-coupled Receptor" <u>Science</u> 272: 872-877

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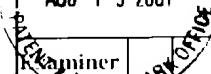
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FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	U	Fox, Jeffrey L., (1994). "No Winners Against AIDS" <u>Bio/Technology</u> 12: 128
TB	V	Gong, Jiang-Hong, et al., (1996). "RANTES and MCP-3 Antagonists Bind Multiple Chemokine Receptors" <u>The Journal of Biological Chemistry</u> 371:10521-10527
	W	Gong, Jiang-Hong, et al., (1995). "Antagonists Of Monocyte Chemoattractant Protein 1 Identified By Modification Of Functionally Critical NH ₂ -terminal Residues" <u>J. Exp. Med.</u> 181:631-640
	X	Hattori, T., et al., (1989). "Involvement of tryptase-related cellular protease(s) in human immunodeficiency virus type 1 infection" <u>FEBS Letters</u> 248:48-52
	Y	Haynes, Barton F., (1996). "Update on the Issues of HIV Vaccine Development" <u>Ann. Med.</u> 28:39-41
	Z	Jones, Simon, A., et al., (1997). "Chemokine Antagonists That Discriminate between Interleukin-8 Receptors" <u>The Journal of Biological Chemistry</u> 272:16166-16169
	A	Klotman et al., (1995). "Transgenic Models of HIV-1" <u>AIDS</u> 9(4): 313-324
	A	
	BB	Levy, (1996). "Controlling HIV Pathogenesis: The Role of the Noncytotoxic Anti-HIV Response of CD8+ Cells" <u>Immunology Today</u> 17: 217-224

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							Yes	No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

TB	CC	Litwin et al., (1996), "Human Immunodeficiency Virus Type 1 Membrane Fusion Mediated by a Laboratory-adapted Strain and a Primary Isolate Analyzed by Resonance Energy Transfer" <i>J.Virol.</i> 70(9): 6437-6441
	DD	McKnight, Aine, et al., (1997). "Inhibition of Human Immunodeficiency Virus Fusion by a Monoclonal Antibody to a Coreceptor (CXCR4) Is both Cell Type and Virus Strain Dependent" <i>Journal of Virology</i> 71(2): 1692-1696
	EE	Moser, Bernhard, et al., (1993). "Interleukin-8 Antagonists Generated by N-terminal Modification" <i>The Journal of Biological Chemistry</i> 268:7125-7128
	FF	Mosier, D.E., (1990). "Immunodeficient Mice Xenografted with Human Lymphoid Cells: New Models for in Vivo Studies of Human Immunobiology and Infectious Diseases" <i>J. Clin. Immuno.</i> 10(4): 185-191
	GG	Oberlin, Estelle, et al., (1996). "The CXC chemokine SDF-1 is the ligand for LESTR/fusion and prevents infection by T-cell-line-adapted HIV-1" <i>Nature</i> 382:833-835
	HH	Oellerich, M., (1984). "Enzyme-Immunoassay: A Review" <i>J. Clin. Chem. Clin. Biochem.</i> 22(12): 895-904

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

TB	II	Olson et al., (1999), "Differential Inhibition of Human Immunodeficiency Virus Type 1 Fusion gp120 Binding, and CC-Chemokine Activity by Monoclonal Antibodies to CCR5" <u>J Virol</u> 4145-4155
	JJ	Poignard, Pascal, et al., (1999), "Neutralizing Antibodies Have Limited Effects on the Control of Established HIV-1 Infection in Vivo" <u>Immunity</u> 10: 431-438
	KK	Raport, Carol J., et al., (1996), "New members of the chemokine receptor gene family" <u>Journal of Leukocyte Biology</u> 59:18-23
	LL	Samson, M., et al., (1996), "Molecular Cloning and Functional Expression of a New Human CC-chemokine Receptor Gene" <u>Biochemistry</u> 35: 3362-3367
	M	Scarlatti et al., (1997), "In Vivo Evolution of HIV-1 Co-Receptor Usage and Sensitivity to Chemokine-mediated Suppression" <u>Nature Medicine</u> 3(11): 1259-1265
	NN	Simmons, Graham, et al., (1997), "Potent Inhibition of HIV-1 Infectivity in Macrophages and Lymphocytes by a Novel CCR5 Antagonist" <u>Science</u> 276:276-279
↓	OO	Stewart, Graeme J., (1997), "Increased Frequency of CCR-5 Δ32 Heterozygotes among Long-term Non-progressors with HIV-1 Infection" <u>AIDS</u> 11: 1833-1838

EXAMINER J. B. DATE CONSIDERED 4/22/04

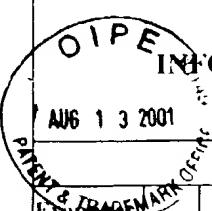
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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

TB	PP	Szabo et al., (1992), "CD4 Changes Conformation Upon Ligand Binding" <u>J. Immunol.</u> , 149(11): 3596-3604
	QQ	Trkola, Alexandra, et al., (1996), "CD4-dependent, antibody-sensitive interactions between HIV-1 and its co-receptor CCR-5" <u>Nature</u> 384:184-187
	RR	Wells, Timothy, N.C., et al., (1996), "Selectivity and antagonism of chemokine receptors" <u>Journal of Leukocyte Biology</u> 59:53-60
	SS	Wu, Lijun, et al., (1996), "CD4-induced interaction of primary HIV-1 gp120 glycoproteins with the chemokine receptor CCR-5" <u>Nature</u> 384:179-183
	TT	Wu, Lijun, et al., (1997) "CCR5 Levels and Expression Pattern Correlate with Infectability by Macrophage-tropic HIV-1" <u>In Vitro, J. Exp. Med.</u> 185:1681-1691
	UU	Wu, Lijun, et al., (1997), "Interaction of Chemokine Receptor CCR5 with its Ligands: Multiple Domains for HIV-1 gp120 Binding and a Single Domain for Chemokine Binding" <u>J. Exp. Med.</u> 186(8): 1373-1381
	VV	Zhang, Y.J., et al., (1994), "Structure/Activity Analysis of Human Monocyte Chemoattractant Protein-1 (MCP-1) by Mutagenesis" <u>The Journal of Biological Chemistry</u> 269:15918-15924

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